

JUL 05 2006

REMARKS

Claims 1-6 are all the claims pending in the application.

I. Claim Rejections under 35 U.S.C. § 103(a)

A. The Examiner has rejected claims 1, 2, 4 and 5 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Hobbs (U.S. 4,857,818), Lange et al. (U.S. 5,786,685) and Unterlass et al. (U.S. 5,392,184).

Claims 1 and 4 recite that when a charging voltage of the capacitor has reached a preset voltage, a regenerative current of the motor flows through the overvoltage protecting circuit such that the charging voltage of the capacitor is set lower than a breakdown voltage of the capacitor and the inverter. Applicants respectfully submit that the prior art cited by the Examiner does not teach or suggest at least this feature recited in claims 1 and 4.

Regarding the cited prior art references, Applicants note that the Examiner has taken the position in the Office Action that it would have been obvious, based on the disclosure of Hobbs and Unterlass, to replace the regenerative transistor 37, as shown in Fig. 9 of the present application, with a varistor.

In particular, regarding this position, the Examiner has indicated in the Office Action that according to Hobbs, the varistor 50 (see Fig. 1) is used to protect the circuit from high voltage transients caused by the collapse of the magnetic field in the motor on shutdown, wherein the protected circuit includes a capacitor 19 (see Office Action at page 6). In addition, the Examiner indicates that according to Unterlass, since the varistor 26 (see Fig. 1) is a non-linear resistive element, at a predetermined voltage amplitude, the varistor 26 quickly begins conducting current

and thus protects the capacitor 16 (see col. 4, lines 11-15) from long-duration overload conditions (see Office Action at pages 6-7).

Thus, as disclosed in both Hobbs and Unterlass, the varistor (element 50 in Hobbs, element 26 in Unterlass) is utilized to protect a capacitor. As noted above, however, claims 1 and 4 each recite that when a charging voltage of the capacitor has reached a preset voltage, a regenerative current of the motor flows through the overvoltage protecting circuit such that the charging voltage of the capacitor is set lower than a breakdown voltage of the capacitor and the inverter.

Thus, according to claims 1 and 4, because the overvoltage protecting circuit sets the charging voltage of the capacitor lower than the breakdown voltage of the capacitor and the inverter, the overvoltage protecting circuit is able to protect both the capacitor and the inverter. In contrast, as noted above, the varistor described in both of Hobbs and Unterlass is capable of protecting only a capacitor.

Thus, based on this disclosure in Hobbs and Unterlass, Applicants submit that if the varistor, as taught by Hobbs and Unterlass, was used in conjunction with the Admitted Prior Art and Lange, that such a combination would, at best, result in an overvoltage protecting circuit capable of protecting the capacitor, and in no way whatsoever would suggest to one of ordinary skill in the art that the overvoltage protecting circuit should set the charging voltage of the capacitor lower than the breakdown voltage of the capacitor and the inverter.

As discussed above, by providing such a feature, the overvoltage protecting circuit according to the present invention is able to protect both the capacitor and the inverter.

In view of the foregoing, Applicants respectfully submit that the prior art cited by the Examiner does not teach, suggest or otherwise render obvious that when a charging voltage of the capacitor has reached a preset voltage, a regenerative current of the motor flows through the overvoltage protecting circuit such that the charging voltage of the capacitor is set lower than a breakdown voltage of the capacitor and the inverter by the overvoltage protecting circuit, as recited in claims 1 and 4.

Accordingly, Applicants submit that claims 1 and 4 are patentable over the cited prior art, an indication of which is kindly requested. Claim 2 depends from claim 1, and claim 5 depends from claim 4. Accordingly, Applicants respectfully submit that these claims are patentable at least by virtue of their dependency.

B. The Examiner has rejected claims 3 and 6 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's Admitted Prior Art in view of Hobbs, Lange et al. and Unterlass et al., and further in view of Ruckman (U.S. 4,571,656).

Claim 3 depends from claim 1, and claim 6 depends from claim 4. Applicants respectfully submit that Ruckman fails to cure the deficiencies of the Admitted Prior Art, Hobbs, Lange, and Unterlass, as discussed above, with respect to claims 1 and 4. Accordingly, Applicants respectfully submit that claims 3 and 6 are patentable at least by virtue of their dependency.

II. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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July 5, 2006